

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-9. (cancelled)

10. (currently amended) An apparatus (1) for sorting packages, comprising means (2) for supplying the packages to at least a manipulating station (3) for their manipulation and orientation, said manipulating station (3) comprising at least a manipulator head (7); at least a belt conveyor (6) associated with the manipulating station (3), the manipulator head (7) being movable by translation according to the axes of an orthogonal Cartesian triad and by rotating about a substantially vertical axis, for orienting the packages on an upper surface (6a) of the conveyor belt (6) contemporaneously to a the movement of the packages caused by an the advancing of said conveyor belt (6), characterized in that said means (2) for supplying the packages comprise a pair of conveyor belts (4,5) movable with variable and independent speeds in order to put the packages in step before their supply to the manipulating station (3) the manipulator head (7) is movable by translation according to axes of an orthogonal Cartesian triad and said means (2) for supplying the packages comprise a pair of conveyor belts (4,5) movable with variable and independent speeds in order to put the packages in step before their supply to the manipulating station (3), wherein each conveyor belt is associated with:

at least an actuating motor (M4, M5);

at least a photocell (B4, B5) for detecting the presence of a package on a belt;

at least a sensor (SQ4, SQ5) cooperating with a correspondent actuating motor (M4, M5) for counting the RPM of said motor, and at least a processor for increasing a counter as a function of the RPM of the motor of a first belt (4) whereon a package positioned ahead is detected; decreasing the velocity of advance of the first belt as a function of the value assumed by the counter; decreasing the counter according to the RPM of the motor of a second conveyor belt (5) whereon a package positioned behind is detected; and increasing the velocity of advance of the second conveyor belt as a function of the value assumed by the counter.

11. (previously presented) An apparatus as claimed in claim 10, characterised in that the manipulator head (7) comprises gripping means to displace the packages.

12. (previously presented) An apparatus as claimed in claim 11, characterised in that the gripping means are grippers provided with gripping appendages (8a;8b), a first appendage (8a) being integral with the structure of the manipulator head (7) and a second appendage (8b) being integral with a rod (9) which can slide inside a corresponding cylinder (10) obtained in the structure of the head (7).

13-14. (cancelled)

15. (previously presented) An apparatus as claimed in claim 10, characterized in that it further comprises a guide (7a) transverse relative to a direction of advance of the conveyor belt (6), said guide (7a) translating on rails (7b) according to a direction that is substantially parallel to the direction of advance of the conveyor belt (6), said manipulator head (7) being movable by sliding on said guide (7a).

16. (previously presented) An apparatus as claimed in claim 10, characterized in that the upper surface (6a) of the conveyor belt (6) is flat and defines a single substantially horizontal plane.

17. (previously presented) An apparatus as claimed in claim 10, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).

18. (previously presented) An apparatus as claimed in claim 11, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).

19. (previously presented) An apparatus as claimed in claim 12, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).

20-21. (cancelled)

22. (previously presented) An apparatus as claimed in claim 15, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).

23. (previously presented) An apparatus as claimed in claim 16, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).

24. (new) A method for putting in step packages conveyed by conveyor belts set side by side, comprising the following steps:

- detecting the package positioned ahead;
- measuring the RPM of an actuating motor (M4) of a first belt (4) whereon the package positioned ahead is located;

- increasing a counter as a function of the RPM of the motor of the first belt;
- decreasing the velocity of advance of the first belt as a function of the value assumed by the counter;
- detecting the package positioned behind;
- measuring the RPM of an actuating motor (M5) of a second conveyor belt (5) whereon the package positioned behind is located;
- decreasing the counter according to the RPM of the motor of the second belt;
- increasing the velocity of advance of the second conveyor belt as a function of the value assumed by the counter.